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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/935,173	08/23/2001	Henry M. Israel	1093NES-US	1648

7590 12/17/2003

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EXAMINER

THALER, MICHAEL H

ART UNIT	PAPER NUMBER
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3731

DATE MAILED: 12/17/2003

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

09/935,173

Applicant(s)

ISRACL, HENRY M.

Examiner

Michael Thaler

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --
Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 10 October 2003.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-3 and 9-19 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-3 and 9-19 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. §§ 119 and 120

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
* See the attached detailed Office action for a list of the certified copies not received.
- 13) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application) since a specific reference was included in the first sentence of the specification or in an Application Data Sheet. 37 CFR 1.78.
a) ☐ The translation of the foreign language provisional application has been received.
- 14) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121 since a specific reference was included in the first sentence of the specification or in an Application Data Sheet. 37 CFR 1.78.

Attachment(s)

- 1) ☐ Notice of References Cited (PTO-892) 4) ☐ Interview Summary (PTO-413) Paper No(s). _____
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948) 5) ☐ Notice of Informal Patent Application (PTO-152)
- 3) ☐ Information Disclosure Statement(s) (PTO-1449) Paper No(s) _____ 6) ☐ Other: _____

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Claims 1-3, 9, 10 and 13-19 are rejected under 35 U.S.C. 103(a) as being unpatentable over Yachia et al. (5,246,445) in view of Pinchuk (5,575,818). Yachia et al., in figure 2b, disclose a stent assembly for use in a blood vessel (col. 2, lines 65-67) comprising an upstream portion (the top portion of the stent shown in figure 2b) having a constricting portion (the top portion of the stent which converges as one follows it in the top to bottom direction) inherently adapted to modify a flow characteristic of embolic material disposed in the blood stream (This portion inherently modifies a flow characteristic of embolic material disposed in the blood stream since, like the convergence 24 of applicant's invention, it converges along the flow path of the stent, reducing the cross-sectional area of the lumen.) and a downstream portion (the large bulge near the middle of the stent) inherently comprising a trapping region for trapping embolic material (This portion inherently traps embolic material since, like the trapping region 22 of applicant's invention, it diverges along the flow path of the stent to allow the embolic material to remain in the divergent region or bulge). Yachia et al. fail to disclose a portion with a generally uniform cross-sectional area at the large diameter anchor portion at the top of the stent shown in figure 2b. However, Pinchuk teaches that the large diameter anchor portion

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of a stent should have a generally uniform cross-sectional area (at 514, for example) for some distance along the longitudinal axis of the stent apparently in order to provide a more secure anchor (col. 7, lines 23-35). It would have been obvious to make the large diameter anchor portion at the top of the stent shown in figure 2b of Yachia et al. of a generally uniform cross-sectional area (by extending it longitudinally upwards with the same diameter shown at the extreme top of the figure for some distance along the longitudinal axis of the stent) so that it too would have this advantage. As to claim 14, Yachia et al. fail to disclose a restrictor element. However, it is well known in this art to provide restrictor elements to stents so that the expansion of the stent is precisely and automatically limited. It would have been obvious to include a restrictor element in the Yachia et al. stent so that it too would have this advantage. As to claims 15-18, Yachia et al. fail to disclose anti-thrombogenic or friction enhancing and reducing agents. However, it is well known in this art to provide stents with these agents 1) so that they are biocompatible, 2) so that they can be positively secured to blood vessels and 3) to reduce trauma on the blood. It would have been obvious to include these agents on the Yachia et al. stent so that it too would have these advantages. As to claims

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3 and 19, Yachia et al. fail to disclose a space between the downstream portion and the upstream portion to allow blood to flow therethrough into a side branch of the blood vessel. However, it is well known in this art to provide stents with spaces or openings to allow blood to flow therethrough into a side branch of the blood vessel. It would have been obvious to provide such an opening or space in the Yachia et al. stent so that it too would have this advantage. The above well known in the art statements are taken to be admitted prior art because applicant failed to traverse the examiner's assertions (M.P.E.P. 2144.03). In any event Yachia et al. discloses spacing the upstream portion from the downstream portion in col. 4, lines 59-61

Claims 11 and 12 are rejected under 35 U.S.C. 103(a) as being unpatentable over Yachia et al. (5,246,445) in view of St. Germain (5,836,966) as applied to claims 1-3, 9, 10 and 13-19 above, and further in view of St. Germain (5,836,966). Yachia et al. fail to disclose the coverage and thickness of the coils varying along an axial portion of the stent assembly. However, St. Germain teaches that the coverage and thickness of stent coils should be varied along an axial portion thereof, in order to vary the outward force along the length of the stent to provide more force in the portion of the blood vessel where it

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is needed (abstract). It would have been obvious to vary the coverage and thickness of the Yachia et al. coils along an axial portion of the stent assembly so that it too would have this advantage.

Applicant's arguments filed Oct. 10, 2003 have been fully considered but they are not persuasive for the reasons set forth above.

THIS ACTION IS MADE FINAL. Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the mailing date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Michael

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Thaler whose telephone number is (703) 308-2981. The examiner can normally be reached Monday to Friday.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Michael J. Milano can be reached on (703)308-2496. The fax phone number for the organization where this application or proceeding is assigned is (703)872-9306.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is (703)308-0858.

mht
12/15/03



MICHAEL THALER
PRIMARY EXAMINER
ART UNIT 3731